

Greening Your School: A Case Study and The Process



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Great Falls Middle School/Turners Falls High School, Turners Falls, Massachusetts

- 190,000 SF School: 130,000 SF Renovation/
60,000 SF New
- 20% Energy Savings above Code
- 30 kW Photovoltaic System
- Commissioning
- Integrated “Green” Educational Curricula



- Data monitoring stations for the Photovoltaic system
- Friends of the Environment Program
- Expanded existing recycling program
- Additional Green Programming (Texas Solar Wise and Wisconsin Watts on School)

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- Sustainable Site
 - Recharge Groundwater Approach
 - 80 additional trees for shading
 - Better use of existing land: ball fields reconfiguration
 - Removal of existing underground tanks
 - Light colored Albedo roof (0.75 reflectance)
- Water Efficiency
 - Recharge Groundwater Approach
 - High efficiency pumps and fixtures
 - On-site water for the irrigation of the fields

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- Energy Efficiency
 - 30 kW Photovoltaic System
 - Heat recovery, Premium efficiency equipment
 - Daylight sensors combined with Skylights
 - Occupancy sensors
 - High efficiency pool heater
 - Commissioning
- Indoor Environmental Quality
 - 100% air intake
 - Daylighting
 - Low VOC materials/finishes
- Materials and Resources
 - Renewable materials: linoleum
 - Building re-use
 - Recycled contents, recycling program

Greening Your School: The Process Prior to Construction

- Establish Clear High-Performance Goal
 - Educational workshop
 - Green Charette
- Use the New Massachusetts CHPS
- Hire Professionals Willing to Work as an Integrated Team:
 - Green experience and commitment
 - Well experienced consultants
- Expect to put more time and resources up-front into the planning process

Greening Your School: The Process During and After Construction

- Identify and Monitor Green Construction Practices
 - Close monitoring of budget and estimates
 - Start working out the rebates with Utility companies at preliminary design phase
 - Set deadlines for the decision making process
 - Keep the integrated team updated on decision making process
- Start up the Commissioning
- Train the Staff to Understand and Maintain the Green Systems

Bibliography

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